



Measurements International
Metrology is Our Science, Accuracy is Our Business™

HIGHLIGHTS

- ✓ Affordable Standard Platinum Resistance Thermometer (SPRT)
- ✓ Extremely low drift rate
- ✓ Temperature range: -200 °C to 670 °C



OVERVIEW

Standard Platinum Resistance Thermometers (SPRTs) are used to interpolate temperature in the range from -189.3442°C to 660.323°C on the International Temperature Scale of 1990 (ITS-90). They are widely used as standard or reference thermometers to calibrate other thermometers and to measure temperature precisely in primary and secondary laboratories. AM1950 and AM1960 SPRTs are the crown jewels of AccuMac temperature probes. It takes decades of our scientific expertise and original craftsmanship to create these world class products. They feature a very low drift rate.

To reach the best performance in stability and repeatability, the sensing element and sensor support are specially designed. To protect the platinum sensing wire from contamination at high temperature, all parts used in the thermometer are extremely cleaned before assembly. The assembly process is well controlled to protect the sensor from contamination. The gas mixture filled in the thermometer makes the sensor wire oxidation effect as low as possible. Every SPRT is fully tested for stability after manufactured. This world class probe meets ITS-90 criteria of standard thermometer fully with a very competitive pricing.

AM1950 has a temperature range from -200°C to 500°C. AM1960 covers range from -200°C to 670°C.

SPECIFICATIONS

Temperature Range	1950: -200°C to 500°C 1960: -200°C to 670°C
R_{tpw}	Nominal 25 Ω
Resistance Ratio	W(Ga) ≥ 1.11807 W(Hg) ≤ 0.844235
Drift at 0.01°C*	1950 ΔR(0.01°C) < 0.002 °C/100 hours at 500°C ΔR(0.01°C) < 0.004 °C/year 1960 ΔR(0.01°C) < 0.003 °C/100 hours at 670°C ΔR(0.01°C) < 0.005 °C/year
Repeatability	±0.001 °C
Thermal Shock	±0.001 °C after 10 times thermal cycles from minimum to maximum temperatures
Self-heating	0.0015 °C at 1 mA current
Measurement Current	1 mA
Sensor Length	42 mm
Insulation Resistance	>1000 MΩ at room temperature
Sheath Material	Fused-Quartz
Dimension	1950: 7 mm (OD) X 480 mm (L) 1960: 7 mm (OD) X 520 mm (L)
External Leads	Insulated copper wire, 4 leads, 2.5 meters
Termination	Gold-plated Spade
Handle Dimension	21mm (OD) X 80 mm (L)
Calibration	Not included

*Long-term drift rate is for reference only. It could be affected by such facts as handling, application, and maintenance, etc.